

WHAT IS CLAIMED IS:

1. A switching regulator, comprising:
  - an input terminal through which an input voltage is inputted;
  - an output terminal through which an output voltage is outputted;
  - a coil connected between the input terminal and the output terminal;
  - a slope correcting circuit for outputting a signal adapted to carry out slope correction for preventing current oscillation;
  - an error amplifier for comparing one of the output voltage and a voltage division value of the output voltage with a reference voltage to output a signal; and
  - a switch for controlling the output voltage with a signal generated using results obtained by arithmetically operating the output signal of the slope correcting circuit and the output signal of the error amplifier,

wherein the slope correcting circuit outputs a signal obtained by adjusting the signal adapted to carry out the slope correction in correspondence to the output voltage.

2. A switching regulator according to claim 1, wherein the slope correcting circuit outputs a signal which is adjusted such that an increasing rate or a decreasing rate of the signal adapted to carry out the slope correction is proportional to a decreasing

rate of a current caused to flow through the coil.

3. A switching regulator according to claim 1, wherein the slope correcting circuit outputs a signal which is adjusted such that an increasing rate or a decreasing rate of the signal adapted to carry out the slope correction is proportional to the reference voltage.

4. A slope correcting circuit for outputting a signal adapted to carry out slope correction for preventing current oscillation of a switching regulator, the slope correcting circuit comprising:

an operational amplifier for comparing a voltage division value of a power supply voltage with a reference voltage to output a signal;

a switch for receiving as its input the signal from the operational amplifier;

a mirror circuit connected in series with the switch between a power supply and a ground electric potential; and

a capacitor connected between the mirror circuit and the ground electric potential,

wherein the slope correcting circuit outputs a voltage developed across the capacitor and the mirror circuit as the signal adapted to carry out the slope correction.